



MASSACHUSETTS
GENERAL HOSPITAL

GLOBAL HEALTH



2022 Year in Review

*Driven by the belief that everyone,
everywhere has a right to good health*

Photo: Mbarara University of Science and Technology graduates, faculty and staff celebrating after graduation in Mbarara, Uganda

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WELCOME

Dear friends and colleagues of the MGH Center for Global Health,

2022 was a year of great change – returning to some in-person events for the first time in nearly three years, building new partnerships, bringing in new team members. CGH grew to meet the challenges of a shifting global health landscape as the world continued to grapple with the COVID-19 pandemic and its gross inequities.

In response, we focused our efforts on strengthening our communities, both locally and globally. Our Global Disaster Response team, Nursing team, and Asylum Clinics deployed to areas like Ukraine and the U.S.-Mexico border to support, train, and provide care. Here in Boston, we hosted a fantastic speaker series for Grand Rounds, featuring local and international global health practitioners and scholars. With these efforts, we sought to move forward in our mission to ensure that everyone everywhere has a right to health – not only through direct clinical care, but also through access to research funding and platforms for sharing work.

To all those who support the work we do, thank you. The programs we highlight in this Year in Review would not be possible without your commitment to our center. We are grateful as well to our research and administrative staff, community health workers, physicians, nurses, and countless others who work tirelessly to advance global health equity. We are already looking forward to all that 2023 has in store.

Best wishes,



Louise Ivers

Louise Ivers, MD, MPH
Executive Director
Center for Global Health



WHO WE ARE

The MGH Center for Global Health is driven by the belief that everyone, everywhere has a right to good health. The Center for Global Health (CGH) is a hub of expertise and support across more than 70 programs, initiatives and deployments in vulnerable communities throughout the world and in the U.S.

Health equity is the cornerstone of all our work: we partner with diverse communities around the world to exchange life-saving ideas, catalyze scientific discoveries, deliver compassionate care, and train the next generation of leaders in global health.

Mass General is the only academic medical center with a multidisciplinary Center for Global Health and a Global Disaster Response team ready to deploy alongside our partners to emergency situations and ongoing humanitarian crises.

At the Center for Global Health, we are proud to support:

287 disaster response roster members ready to deploy to work alongside our partners to provide care in the most challenging circumstances.

56 Global Nursing Fellow alumni working to provide bi-directional nursing education and advance nursing leadership.

130 faculty, nurses, trainees, and other providers actively advancing global health equity across 14 Mass General departments.

45 global educators working to mentor and exchange clinical knowledge in topics such as palliative care, pediatric and adult oncology, nursing, and many others.

33 faculty researchers working in partnerships to advance science in lower-middle-income countries through **\$70** million in research grants.

Global programs in **45** countries in the areas of clinical education, research and innovation, nursing, and through our disaster response and humanitarian initiatives.

NURSING



Our Global Nursing Program is the only one of its kind, developed in response to our partners' call for advanced nursing training tailored to each community's unique clinical needs. Nurses play a critical role in caring for patients in low and middle-income countries and a global nursing shortage threatens the health of the majority of the world's population.

Growing the Global Nursing Fellowship Program:

Expanding Nursing in Southwestern Uganda in Partnership with Mbarara University of Science and Technology (MUST) and Mbarara Regional Referral Hospital (MRRH)

Southwestern Uganda has a dire shortage of nurses, leaving many communities without adequate medical care. CGH is tackling the need for well-trained nurses by supporting professional development opportunities for MUST nursing faculty to strengthen nursing education and care and elevate the profession in Uganda. We are also expanding our innovative community nursing initiative that connects the academic medical center with the communities it serves.

We continued our robust nursing fellowship program:

- Facilitated three virtual Nursing Fellowships for Master of Science in Nursing, Critical Care
- Led a two-week in-person nursing fellowship in Neonatal Intensive Care with clinicians from Mbarara Regional Referral Hospital and master's students from Mbarara University of Science and Technology

Supporting Master's Level Advanced Nursing Education in Uganda.

The Ugandan Ministry of Health and Education approved three additional master's degree program tracts — in midwifery, pediatrics and mental health — within the MUST nursing department master's degree program. These new master's level nursing degree tracts will increase nursing faculty and enhance quality of care at MRRH and throughout Uganda.

Building a Global Nursing Research Program

CGH nursing leaders worked with the MGH Munn Nursing Research Center to provide a global nursing fellow to teach research practices to Mbarara University of Science and Technology master's students. Given the success of this initial pilot, we anticipate continuing this collaborative approach to global nursing research, serving as virtual educators, external research reviewers and mentors in the global nursing research program.

Strengthening and Expanding Global Nursing Leadership Through Virtual Education

Working within COVID-19 travel constraints, CGH Nursing Director, Mary Sebert, MSN, RN, MPH, reformulated our nursing leadership course as a four-month virtual program. With this new format expanded participation to train fifteen nurses from India, Bangladesh, Pakistan, Nigeria, and Kenya. The program resulted in the development of seven advocacy and quality improvement projects.



HUMANITARIAN ACTION

Our Humanitarian Action team consists of Global Disaster Response, which responds to acute and ongoing humanitarian crisis around the world, and the MGH Asylum Clinic, which provides clinical evaluations for asylum seekers and connects them to health care and other supports.

The Asylum Clinic works closely with the MGH Center for Immigrant Health that cares for the health and wellbeing of immigrants across Boston and Massachusetts, which has one of the highest rates of migration in the US, second only to Florida. Humanitarian Action also includes our programs to end gender-based violence, an issue that spans all our efforts.

Our Global Disaster Response Team responds to acute disasters, ongoing humanitarian crises, and other incidents or events that require support and align with Center for Global Health priorities. We bring together expertise from across Mass General and work

alongside external partners to meet the needs of those on the ground. In the past two years we have responded to crises in Haiti, Pakistan, Uganda, Ukraine and surrounding areas impacted by Russia's Invasion, at the U.S. – Mexico border and in scores of other areas around the globe.

Responding to the Migration Crisis from Boston to the U.S. - Mexico Border

Throughout 2022, the migration crisis at the U.S. – Mexico border grew increasingly dire. Our team sent 13 deployments of medical specialists to provide clinical support to asylum seekers coming from, Central American and South American countries as well as Haiti, Ukraine and other areas around the world experiencing political, economic and environmental upheaval that endangers the lives of their citizens. Our teams deployed to the border camps in Matamoros, Mexico and Reynosa, Mexico.

- 13 separate teams deployed to border camps in Mexico
- 95 days of medical care were provided through the volunteer efforts of Mass General specialists from across the hospital.
- Secured transfers to U.S. hospitals across the border for patients in need of emergency treatment.
- Continued to partner with the Pan American Health Organization (PAHO) to respond to regional disasters that impact migration.
- Worked with the MGH Asylum Clinic and the MGH Center for Immigrant Health to develop a regional response to an influx of migrants to the Boston area in need of clinical services.
- Made a Commitment to Action with the Clinton Global Initiative to scale up response to the migration crisis at the U.S. - Mexico border.

HUMANITARIAN ACTION CONT.

Clinical and Emergency Response to the Russian Invasion of Ukraine

On February 24, 2022, Russia launched an invasion of Ukraine that triggered a global humanitarian crisis. Within two weeks, Lindsey Martin, NP, Director of CGH Global Disaster Response, deployed to Poland alongside our non-governmental organization partner, Global Response Medicine, bringing vital donated equipment—two ventilators that enabled pediatric transfers to ICUs. In April, two more teams deployed to the region.

In tandem with our work in Eastern Europe, the team joined a large-scale collaboration with International Medical Corps, Harvard Humanitarian Initiative and Boston Children's Hospital to provide trauma training to Ukrainian medical professionals and citizens. This fall, two nursing teams, led by Lindsey Martin, deployed to Ukraine to train nurses in the fundamentals of trauma care.

Critical care and emergency medicine physician, Jarone Lee, MD, MPH focused on delivering digital health services in collaboration with Health Tech Without Borders and other partners, providing over 55,000 telehealth consultations to patients, families, and children in Ukraine. He also led a CGH team that supported multiple streams of peer-to-peer, tele-educational webinars which have reached over 2,000 clinical participants within Ukraine.

In 2022, GDRHA:

- Added 45 new volunteers to their roster through continued outreach throughout the year.
- Conducted Safety and Security training for roster members as well as began developing training in the use of portable ultrasound machines for treatment and diagnostics in the field.
- Partnered with multiple organizations on deployments to Ukraine and affected regions.
- Supported Health Tech Without Borders on remote education project for emergency response to Pakistan floods.



MGH Global Disaster Response and Humanitarian Action team members Skeeter Welder, RN (third from left) and Lindsey Martin, NP (center) at Khmelnytskyi Regional Clinical Hospital in Ukraine, where they were part of a team training local clinicians.



The MGH Asylum Clinic

The mission of the MGH Asylum Clinic is to provide forensic medical and psychological evaluations to survivors of persecution seeking asylum in the United States and to educate the medical community on caring for asylum seekers and refugees.

Continued Growth and Success

In 2022 we saw a significant increase in the number of asylum seekers the Asylum Clinic was able to assist: 174 referrals to the Clinic and 118 individuals completed medical or psychological evaluations, our largest year to date. Our clients came from 35 countries, with the majority from Uganda, El Salvador and Guatemala; 30% were under 30 years old and 70% of those seeking assistance were non-English speakers. Volunteers from Mass General Medical Interpreter Services provided translation in 16 different languages for asylum seekers at the Clinic.

New Full-Time Program Coordinator

Allison Arteaga Argumedo joined the Asylum Clinic in February 2022 as a full-time program coordinator. This enabled us increase recruitment and on-boarding of new volunteers, schedule more evaluator teams, and communicate with attorneys to ensure all the needed information and documents to proceed with an evaluation had been assembled. Allison is a graduate of Cornell University and Brown University and worked as an immigration paralegal at Kids in Need of Defense (KIND) prior to joining Mass General. Having a program coordinator funded as a full-time position was key to our ability to meet the rapid expansion of the number of individuals and families needing support as they navigate the asylum-seeking process.



RESEARCH & INNOVATION

CGH works to accelerate transformative global health research and innovation by investing in the Global Health Research collaborative — a diverse and interdisciplinary network of researchers and faculty across fields — to increase the exchange of life-saving approaches to treatment, the creation of new partnerships and the dissemination of research.

Jessica Haberer, MD, MS, Director of CGH Research and Innovation, has been working with multiple partners to re-envision research partnerships and create opportunities for meaningful research capacity building. In fall of 2022, Dr. Haberer and Yap Boum, PhD, from the Institute Pasteur in the Central African Republic launched The Village: a digital platform that aims to support the growth of locally driven research agendas and clinical programs in Africa. On December 5th,

a kick-off, co-creation event, Building the Village, introduced the idea of the mobile platform to global health researchers and practitioners at Mass General and beyond. As the number of researchers, funders, mentors, mentees and innovators engaged with The Village grows, it will facilitate knowledge sharing, connections and new opportunities for action.

The Center for Global Health was recently awarded a **T32 training grant** titled, “The Global Noncommunicable Disease (NCD) Research Training Program,” which aims to provide post-doctoral fellows at MGH with opportunities to obtain research skills and high-quality mentorship to prepare for research careers addressing global cardiovascular, cardiometabolic, pulmonary and hematologic diseases. This two-year training program will utilize existing resources, such as the Program in Clinical Effectiveness and relevant global health coursework at the Harvard T.H. Chan School of Public Health, as well as seminars on career development and global health equity at CGH. CGH will provide additional resources for global health research implementation and administration. This program will support two new fellows per year to prepare them for research careers, including the transition to an independent NIH-funded research portfolio.

The Consortium for Affordable Medical Technologies (CAMTech) continued to catalyze innovation in health care delivery. Several projects — including MobiCare, an app connecting patients and providers, and PRISMS, an app facilitating remote neonatal care management — garnered international recognition. In the summer of 2022, three CAMTech Uganda staff members attended a design thinking program at Massachusetts Institute of Technology, and CAMTech innovation sprints resumed in September.

INNOVATION CONT.

CATALYZING AND SUPPORTING INNOVATION: CGH Awards and Funding

Global Health Finish Line Grants were developed to promote the advancement of junior researchers and trainees from MGH Global Health partner sites. These awards provide a relatively small amount of money to ensure a research project that is near completion gets “over the finish line.” They also support mentorship between MGH Global Health faculty and junior researchers. CGH distributed three awards in 2022, including:

- **Foksouna Sakadi, MD**, published a peer-reviewed article, “Understanding COVID-19 vaccine acceptance and hesitancy in N'Djamena, Chad: Results from a cross-sectional study of patients, community members, and healthcare workers” on June 27, 2022; Finish Line funding covered the \$2,100 open access fees the research team needed for publication.
- **Julian Adong, M.Med** pediatric HIV clinician and researcher at MUST, was able to complete her qualitative analysis of adolescents who used evriMED smart pillbox (an electronic adherence monitor from Wisepill Technologies) to measure their adherence to antiretroviral therapy; CGH supported this last step of the study after the original research grant ended.

Global Health Research Development Award is designed to support investigators who are beginning careers in global health research. The award is not restricted to specific areas within global health, but research must be grounded in a robust, in-country partnership and contribute to the local research agenda.

- David Roach, MD, MBA was awarded the CGH Research Development Award for his research related to antibiotic resistant

pneumonia in Peru. This project aims to develop an affordable, portable assay to characterize the specific antimicrobial resistance genes, which would allow clinicians to understand the antibiotic resistance and prescribe the appropriate treatments.

“Global Health is Local Health” Grants:

- **Mark Stoltenberg, MD, MPH, MA /Bethany-Rose Daubman, MD**
- *Earning Trust and Developing Emotional Synchrony*, a training on how to rapidly develop trust with patients from marginalized communities who may seek alternative treatments or hold religious beliefs that include faith healing.
- **Clara M. Gona, PhD, FNP-BC**, *Cardiovascular Disease in African Immigrant Populations*, focusing on the Zimbabwe immigrant community in Boston and New England as a first cohort.

“Research for Local Policy Action” Grant:

- **Davida Schiff, MD**, *Treating Opioid Use Disorder During Pregnancy – H221, An Act to Support Families*. In the US, if pregnant patients talk with care providers about substance use, health professionals must report them to the Department of Children & Families, which often then inhibits patients from discussing opioid use, preventing them from receiving treatment that would increase their safety and improve the health of the child. This act would alter the mandated reporting guidelines to better serve pregnant women with substance use issues.

Seed Grants to Improve Care in Uganda:

CGH awarded 11 seed grants to individuals and teams conducting research related to improving care and meeting the burden of disease in Mbarara Regional Referral Hospital, Uganda and in the surrounding community. Wyss Global Health Fellows continued to make important progress in expanding capacity in cervical cancer care, palliative care and chronic disease care in Mbarara.



DEEPENING GLOBAL PARTNERSHIPS

The Center for Global Health serves as a resource to Mass General Global Health Community members to expand formalized relationships with institutions in low-resource settings. We provide support on best practices around partnering, including the characteristics of an effective partnership, considerations for partnering, and creation of resource materials for a wide variety of settings and situations.

- In Uganda, we continued efforts on our flagship program First Mile that brings disease prevention and early treatment to rural communities in partnership with Mbarara Regional Referral Hospital and Mbarara University of Science and Technology (MUST) by training doctors, nurses and village health workers to go into communities and schools to ensure people receive care within one mile of their homes in the villages.

This program exemplifies our strategic priorities to establish equitable, sustainable partnerships and focus on enhancing nursing, education, research and innovation. Nurses and physicians who have received educational training through the program now serve as health care leaders in southwestern Uganda and around the world.

First Mile has become a model for other Center for Global Health work around the globe as we continue to broaden our impact and increase our support of community health clinics to ensure patients can access care near their homes.

- In Bangladesh, we furthered collaborative efforts with Ayat Education on the Dignifying Life Palliative Care (DLPC), an evidence-building approach to partnership and collaboration among policymakers, philanthropists, and support groups around palliative care for patients with serious illnesses or life-threatening conditions – connecting health care professionals, nurse educators and nursing experts as a whole. Highlights from 2022 include:
 - Ayat Education trained 38 nurse educators in palliative care approaches, as part of a successful tripartite partnership program with Mass General and Simmons University
 - Nurse educators from 10 public nursing colleges taught sessions focused on real-life challenges of teaching and strategized solutions for improving such as pedagogy framework, interactive teaching skills. A Government Office Order (GO) directed this work, a first in Bangladesh and a significant mark of success.
 - One Tumor Board – technical knowledge transfer session facilitated by Mass General Global Health involved 60 physicians of Oncology and Radiotherapy departments of Dhaka Medical College and Hospitals.
- In Haiti, we continued our partnerships with the Haitian Ministry of Health, Partners In Health/Zanmi Lasante, and Health Equity International's St. Boniface Hospital. We collaborated with them on research to investigate and respond to the resurgence of cholera in the country, support laboratory testing capacity, and disease surveillance. When cholera reemerged in Haiti in late September 2022, after three years of no reported cases, we helped establish – through genomic analysis of a cholerae strain isolated from an index patient – that the new outbreak was likely caused by a close descendant of the strain that first occurred in Haiti in 2010. This leads us to believe that cholera had never been eliminated from the country. In addition, building on the public health activities implemented by our partners to control the outbreak, including oral cholera vaccination campaigns, we are assessing the duration of protection afforded by the Euvichol vaccine through a case-control study in the Central Plateau of Haiti.

PARTNERSHIPS CONT.

Expanding Clinical Collaborations with Mass General Departments

The Center for Global Health works to build a strong community of practice within Mass General to advance our strategic focus areas. In 2022, we grew the newly established global programs in cancer care, palliative care and gastroenterology in coordination with respective Mass General division leadership. Highlights include:

Global Cancer Care Program

This past year was one of important expansion and efforts coming to fruition for MGH Global Cancer Care Program. Highlights include:

- POETIC (Program for Enhanced Training in Cancer) program resumed and added new collaborations in adult oncology.
- Formed the Global Oncology Hub (GOHub) in partnership with Dana Farber Cancer Institute and the Beth Israel Deaconess Medical Center and launched a monthly global oncology seminar series. MD Anderson Cancer Center at University of Texas joined GOHub in September and now UPenn.
- Expanded efforts to innovate and leverage virtual educational to engage a larger audience and launch a Pan Africa forum for clinical knowledge sharing and developing a more globally applicable community of practice.
- Formalized a partnership with Karkinos Healthcare in India.
- Partnered with Global Access Action to develop a strategy for voluntary licensing of oncology drugs for LMICs



Palliative Care

The MGH Global Palliative Care Program was thrilled to resume in-person training with longitudinal partners in both Chile and Brazil this year.

Our virtual training remains strong, with two Pan American Health Organization-sponsored Project ECHO groups for clinicians providing palliative care in the Caribbean and Latin America.

Our work increasing palliative care education in Jamaica via partnership with the Jamaica Cancer Care and Research Institute was recognized via the HMS Dean's Community Service Award.

Our Community-Based Participatory Research work in Lakota Nation continued via a hybrid model. We were pleased to be able to report the results of our Talking Circles and interviews with Lakota patients, caregivers, Tribal leaders and traditional healers.



Photo: Drs. Daubman and Stoltenberg receiving the Harvard Medical Dean's Community Service Award

PARTNERSHIPS CONT.

LOOKING AHEAD

Supporting high impact programming and leveraging our strengths in new and developing partnerships.

Building a New Partnership with the School of Midwifery Makeni (SOMM), Makeni, Sierra Leone

Today, Sierra Leone has one of the highest maternal mortality rates in the world. CGH initiated a new partnership with the School of Midwifery Makeni (SOMM), in Makeni, Sierra Leone. As an initial step in this growing partnership, Mary Sebert, MSN, RN, MPH, and Certified Nurse Midwife, Barbara “Bobbie” Curtis, completed a needs assessment, leading to a clinical didactic training for 70 midwifery students with the aim of helping to decrease maternal mortality and improve care for women before, during and after pregnancy.



University of Global Health Equity (UGHE) Academic Partnership

The MGH Center for Global Health is currently working with the University of Global Health Equity (UGHE) on developing an academic partnership. The UGHE is a global university based in rural northern Rwanda, founded by Partners in Health, which aims to transform global health delivery by reimagining medical education. Its mission is to build the next generation of global health professionals into leaders and changemakers, who will ensure quality health care reaches every individual, in every corner of the globe. Amongst other programs, the university offers a master's degree program in global health delivery (MGHD), as well as a joint MBBS/MGHD program.

Starting in 2023, there will be an exciting opportunity for Mass General to contribute to UGHE by coming to Rwanda as a Visiting Faculty for two weeks at a time.

Expanding Gastroenterology Global Partnerships in India and Nigeria

CGH is working with the MGH Division of Gastroenterology to formalize its partnerships with two renowned teaching hospitals in India and Nigeria. Building on a strong history of collaboration, the MOU with Manipal Academy of Higher Education (MAHE) in India focuses on a clinical bilateral exchange program to strengthen GI clinical services, as well as promotion and support of research. In Nigeria, the MOU with University of Calabar Teaching Hospital provides a framework for building on GI initiatives related to research and innovation, education and training, as well as nursing education and leadership development.



Photo: Akwi Asombang, MD, MPH organized the Mentorship Program in Zambia with POHER - Annual Medical Research and Mentorship Program for Medical Students in Africa

GLOBAL EDUCATION & CLINICAL INNOVATION

Mass General Global Health Education and Clinical Innovation works to advance the shared goals of clinicians and educators engaged in global health across the hospital and to synergize global health activities.

New Associate Director of Global Education and Clinical Innovation, Esther Freeman, MD, PhD

Esther Freeman, MD, PhD was named Associate Director of Global Education and Clinical Innovation in March, 2022. As a core member of the MGH Center for Global Health leadership team, Dr. Freeman will work to advance the CGH education goals in collaboration with other leaders at CGH and across Mass General.



In her role as Associate Director, Dr. Freeman will convene the Mass General Global Health Education and Clinical Innovation Collaborative — a forum of clinicians and providers engaged in global health practice and will work across Mass General with department education directors, residency directors, concentration directors and other leaders to synergize global health activities. She will also serve as a resource for Mass General clinical faculty and providers in the global health clinical education and innovation track, in alignment with Harvard Medical Schools career paths in global health.

Dr. Freeman has received the most highly cited author award in Epidemiology in AIDS for her research focused on HIV-associated malignancies. She serves as Mass General Director of Global Health Dermatology and a consultant to the World Health Organization in Geneva in HIV-associated skin disease.

Matthew Gartland, MD, named Associate Program Director for Global Medicine in the Department of Medicine



For the past decade, Mass General's Global Medicine Residency Program has been inspiring residents in medicine to pursue careers in global health and supporting them to build the skills and relationships that are needed to work toward health equity around the globe.

Dr. Gartland will lead the Global Medicine track within the Department of Medicine's residency program and will provide educational experiences for residents in the areas of global medicine and health equity. He will provide mentorship and career development, participate in intern recruitment, facilitate connections to faculty in the MGH Center for Global Health and throughout the hospital, and assist residents in organizing impactful global away rotations. This year the incoming class has ten residents for a total of 23 in the program.

Global Education and Clinical Innovation Collaborative

The new Associate Director, Esther Freeman, MD, PhD, helped reinvigorate the Global Education and Clinical Innovation Collective by gathering a diverse group of over 50 faculty, nurses, pharmacists and other members of the Mass General community who engage in global education, health care delivery, clinical mentorship, and innovation. We look forward to their continued work to identify synergies and accelerate educational impact in the pursuit of global health equity.

MGH Center for Global Health Medical Education and Innovation Development Award

In February 2022, the newly launched MGH Center for Global Health Medical Education and Innovation Development Award — which provides up to \$20,000 to early-to mid-career healthcare practitioners — was awarded to Akwi Asombang, MD, MPH, Director of Global Health Programs for Mass General Gastroenterology. The award will help her develop a training program to increase skills in general and advanced GI techniques, including endoscopy, in partnership with the World Gastroenterology Organization Training Center at Lagos University Teaching Hospital in Lagos, Nigeria.



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